

## METHODS AND SYSTEMS FOR HIGH SPEED QUANTIZERS

### ABSTRACT OF THE DISCLOSURE

Methods and systems for improved feedback processing in delta-sigma modulators, including single bit and multi-bit delta-sigma modulators, continuous-time and discrete-time delta-sigma modulators, and digital and/or analog feedback loops. One or more processes are performed in a pipeline having a higher throughput rate than a throughput rate of a delta-sigma modulator. Any of a variety of processes and combinations of processes can be performed in the pipeline including, without limitation, quantization, digital signal processing, and/or feedback digital-to-analog conversion.

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